

V.—*On some new Procellariidæ collected during a Voyage round the World in 1865–68 by H. I. M.'s S. 'Magenta.'* By HENRY HILLYER GIGLIOLI, Sc.D., C.M.Z.S., Naturalist to the Expedition, and THOMAS SALVADORI, M.D., C.M.Z.S., Assistant in the Royal Zoological Museum of Turin.

A FULL account of the ornithological collections made during the voyage of the 'Magenta,' rich in species and specimens, will be communicated to the scientific world in a special Memoir, at which both of us are hard at work*. Meanwhile we think it advisable to publish the following descriptions of new species of *Procellariidæ*, which are as important as they are unexpected, especially after the careful review of this most intricate and difficult family by that distinguished American ornithologist Elliot Coues†.

The subject of this paper will be read at the meeting of Italian Naturalists at Vicenza on the 13th of September; yet as the Proceedings of that meeting will not be published for some time, we have thought that an English version of the first ornithological fruits of the voyage will not prove unacceptable to our English friends and to the readers of 'The Ibis.'

1. *ÆSTRELATA MAGENTÆ*, sp. nov.

"Bill black; tarsi and a third part of the toes, and interdigital membranes at their base, flesh-colour; the distal third black; irides brown. A rare species, of which I shot a single specimen on the 22nd of July, 1867, in the Pacific, lat. $39^{\circ} 38'$ S., long. $125^{\circ} 58'$ W. (of Greenwich). I saw it again on the 3rd of August, lat. $32^{\circ} 23'$ S., long. $92^{\circ} 39'$ W., and on the 31st of the same month in lat. $26^{\circ} 7'$ S., long. $88^{\circ} 50'$ W."—H. H. G.

Æ. supra intense fusco-nigra, plumis sub quadam luce pallide marginatis; alis, cauda, lateribus, subalaribus ac torque jugulari fusco-nigris; regione anteoculari intensiore; fronte albido-sericea fere argenteo colore perfusa, lateraliter magis conspicue; gula, pectore abdomineque albis; subcaudalibus lateraliter cinereo tinctis, scapis parte apicali

* [Cf. 'Ibis' 1868, pp. 497–499.—ED.]

† "A Critical Review of the Family *Procellariidæ*," Proc. Acad. N. Sc. Philad. 1864, pp. 72–91, 116–144; 1866, pp. 25–33, 134–197. [Cf. 'Ibis' 1867, p. 131.—ED.]

fuscis; rostro nigro, pedibus carneis, digitis palmisque nigris excepta parte basali interna tarso concolori; iride brunnea.

Long. tot. 0^m·400, alæ 0^m·310, caud. 0^m·140, rostr. a fronte 0^m·043, tars. 0^m·038, dig. med. cum ung. 0^m·056.

This species appears to be allied in a certain degree to *Procellaria rostrata*, Peale, having a robust bill as in that species, although not so high at the base, being instead broader than high; moreover, in our species the frontal feathers advance abruptly as far as the base of the nasal tubes. It differs also in the darker and blacker colour of the upper parts, the edges of each feather in certain lights being distinctly lighter, and wanting completely that sepia-brown tint so characteristic of *P. rostrata* (cf. Cassin, Orn. U. S. Expl. Exp. 1858, p. 412, pl. 41). Our species, besides, has a white throat, and the forehead washed with silky white, which extends laterally and posteriorly as far as over the eyes; this is an important diagnostic character: besides this last feature, it differs from *P. incerta*, Schlegel, in its much darker upper parts, in its well-marked jugular band, in its white under tail-coverts, and in its smaller dimensions.

In the specific name given to our species, we wish to commemorate that of the first Italian man-of-war which has circumnavigated the globe.

2. *ÆSTRELATA ARMINJONIANA*, sp. nov.

"I found this species pretty common near Trinidad Island, in the South Atlantic, in lat. 20° S. or thereabouts. On the 23rd of January, 1868, as we lay becalmed about eight miles off the island, many specimens were shot; unfortunately, believing it a well-known species, I had only two skins prepared. Bill black, tarsi and basal portion of the toes and membranes flesh-colour, the distal parts being black; irides brown."—H. H. G.

Æ. supra fusco-nigra, plumis totis pallide fere griseo colore marginatis, in fronte magis conspicue; gula alba plumis anguste griseo-fusco-marginatis; pectore abdomineque pure albis; torque jugulari, lateribus, axillaribus, tectricibusque alarum inferioribus nigro-fuscis; subcaudalibus cinereo-nigris apicibus albicantibus ac minutissime albido variegatis, scapis nigris; remigibus nigro-fuscis, intus basi albicantibus; rectricibus nigro-fuscis; rostro nigro; tarsis

carneis, digitis ac membrana interdigitali nigris, excepta parte basali interna tarso concolori; iride brunnea.

Long. tot. 0^m·350, alæ 0^m·300, caud. 0^m·140, rostr. a fronte 0^m·029, tars. 0^m·034, dig. med. cum ung. 0^m·018.

The above is the description of what appears to be a fully adult specimen. The other one, perhaps younger, has the sides of the head whitish, the white of the basal portion of the feathers showing itself; the gular collar is not so much marked; and the lower series of the under wing-coverts, together with the basal portion of the remiges, are decidedly white. These are the only appreciable differences between our two specimens. This species is near akin to the preceding one, but differs in being smaller, more slender, in having a much smaller and weaker bill, and, moreover, in having no trace of silky white on the forehead; nor is the anteocular region darker; besides, its under tail-coverts are greyish-black, and their tips bordered with white.

This species appears also to have many affinities with *P. neglecta*, Schlegel; but besides the difference of *habitat*, *P. neglecta* being from the Polynesian islands, this last species, according to Schlegel, has "*les tiges des remiges blanchâtres*," while in ours they are black.

Finally, *Æ. arminjoniana* appears allied to *P. parvirostris*, Peale (from the Pacific), which species has all its upper parts of a sepia-brown without the least admixture of cinereous, which last character is conspicuous in our species, on account of the lighter edges of the feathers; besides, our bird has a white throat, while that of *P. parvirostris*, Peale (Cass. *loc. cit.* pl. 40), is of the same colour as the upper parts.

We have named this species after Captain Victor Arminjon, R.I.N., the gallant officer who commanded the 'Magenta' on her voyage, as a slight token of gratitude for the efficient manner in which he aided to render more complete our researches on the pelagic fauna.

3. *ÆSTRELATA DEFILIPPIANA*, sp. nov.

"This species was seen for the first time in our wake on the 5th of August; it followed us up to the 10th, in lat. 18° 4' S., long. 79° 35' W., not far from the Peruvian coast. It reap-

peared more numerous, following the ship's wake, during our cruise from Callao to Valparaiso in September. It flies very much like a *Prion*. Bill black; tarsi light blue; toes black, interdigital membranes yellowish, brownish towards the distal extremity; irides brown."—H. H. G.

Æ. pileo, collo supra, dorso ac supracaudalibus pulchre cinereis, uropygio ac regione periophthalmica, præsertim infra oculos, nigricantibus; plumis dorsalibus obsolete albescente marginatis; sincipitis plumis albo marginatis, fronte fere ex toto alba: subtus omnino pure alba; lateribus pectoris vix cinereo tinctis; alis cinereo-nigricantibus, remigibus secundariis magis cinereis, fasciam obliquam fere constituentibus; rectricibus alæ inferioribus candidis; margine carpali ac linea sub margine radiali candido cinereo-nigricantibus, remigibus nigricantibus; duabus tertiæ partis pogonii interni abrupte albis, intus apicem versus fusco-nigricante marginatis. Rectricibus sex mediis fere ex toto pure cinereis, quarta et quinta utrinque albo variegatis, extima alba pogonio externo minutissime cinereo-punctata, interdum pure alba; rostro nigro; tarsis pallide cæruleis, digitis nigris, palamis flavidis apicem versus fuscis; iride brunnea.

Long. tot. 0^m·300, alæ 0^m·225–0^m·240, caud. 0^m·105–0^m·120, rostr. a fronte 0^m·026–0^m·029, tars. 0^m·028–0^m·029, dig. med. cum ung. 0^m·035–0^m·037.

Besides these slight differences in size, there are in the four specimens collected slight differences in colour, especially in the external rectrices, which are more or less spotted with greyish—sometimes the first is quite white. This species, although much smaller than *Æ. mollis* (Gould), has a bill relatively, and in some specimens, absolutely longer. It is much compressed, and the interramal space denuded of feathers, as in *Prion*, with which this species appears to have some affinity in the coloration of the tarsi and the manner of flight, as already noticed.

Æ. defilippiana belongs to that group of small species distinguished by their white under wing-coverts, and to which belong *Æ. cooki* (Gray), *Æ. gavia* (Licht.), *Æ. desolata* (Gm.), and *Æ. gularis*, Peale*; with this last species alone our bird has in

* This species was incompletely described by Peale (Zool. U. S. Expl. Exp. 1818, p. 299, pl. 84); but the type specimen has been most accurately redescribed by Coues (Proc. Acad. Philad. 1866, p. 151), who, for want of specimens for comparison, did not consider it specifically distinct

common the peculiar coloration of the remiges, the outer and one-third of the inner webs of which with the tips are brownish-black, while two-thirds of the internal webs are white, the two colours meeting without any gradation of tint, but presenting a sharp well-defined outline, and thus forming two distinct areas, the white area being internally bordered at its apex by brownish-black.

But our species differs from *Æ. gularis*, as described by Coues, in its smaller dimensions and slighter make (*Æ. gularis* being in size and make similar to *Æ. mollis*), in the cinereous coloration of its upper, and the pure white of its lower parts, while *Æ. gularis* would be dark-coloured above and below, having only the under tail-coverts white. Moreover we may observe that *Æ. gularis* appears peculiar to a much more antarctic region, the only known specimen having been caught in S. lat. 68°, long. 95° W.

We have given to this species the name of the much-lamented Professor F. de Filippi, who halfway on the long voyage, undertaken with such bright hopes, on board the 'Magenta,' fell, as a soldier on the field of battle, a victim to his love of Natural Science, at Hong Kong, on the 9th of February, 1867.

4. *ÆSTRELATA TRINITATIS*, sp. nov.

"We found this species pretty abundant around Trinidad Island in the South Atlantic, and I procured several specimens on the 23rd of January. Bill and feet deep black, irides brown."—H. H. G.

Æ. ex toto fuliginoso-nigra, subtus vix pallidior, remigibus nigricantioribus, basi intus pallidioribus; fronte ac capite supra plumis distincte griseo-marginatis; rostro pedibusque nigris; iridibus brunneis.

Long. tot. 0^m·350, alæ 0^m·290–0^m·295, caud. 0^m·130, rostr. a fronte 0^m·028–0^m·031, tars. 0^m·034, dig. med. cum ung. 0^m·046–0^m·050.

from *Æ. mollis*, although it seems to us that he was perfectly entitled to do so, looking to the pure white coloration of the under wing-coverts, and of the greater part of the internal webs of the primaries, without any gradual transition to the blackish-brown of the external webs, and part of the internal ones.

Another specimen, perhaps a younger bird, has the under parts, and especially the throat, lighter, the pure white of the basal portion of the feathers showing amidst the fuliginous-brown of the rest.

This species belongs to that group of *Æstrelata* characterized by a uniform sooty-brown plumage, and generically distinguished by Bonaparte as *Pterodroma*.

Our bird differs from *P. macroptera* (Smith) (*Procellaria fuliginosa*, Kuhl, nec Gm.) in its smaller dimensions, and in its relatively longer wings, which extend about 2 inches beyond the extremity of the tail—also in the pure white (not greyish, as in *P. macroptera*) of the basal part of the feathers which clothe the neck and under parts. But the main distinction lies in the bill, which in our species is *much* smaller and weaker*.

Æ. trinitatis appears to be rather smaller than *Procellaria caribbæa*, Carte (P. Z. S. 1866, p. 93, pl. x.), from which it may be at once distinguished by the peculiar cinereous colour of the rump and upper tail-coverts in the last-named species. It is hardly worth while noticing that our species differs from *P. aterrima*, Verreaux, in the uniform black of its feet, and from *P. bulweri*, Jardine and Selby, which is so much smaller†.

* Three specimens of *Æ. macroptera* form part of the Ornithological collections made during the voyage of the 'Magenta,' and beyond doubt are the same as *P. atlantica* (Gould).

† Having described four new species of *Æstrelata*, we add a list of the species which now compose the genus. Those marked with an asterisk form part of the 'Magenta' collections, the appended number showing how many specimens were prepared.

- | | |
|--|---|
| <p>a. <i>ÆSTRELATA</i>.</p> <p>1. <i>Æstrelata hæsitata</i> (Kuhl).</p> <p>*2. <i>Æ. lessoni</i> (Garnot). (<i>P. leucocephala</i>, Licht.) (4.)</p> <p>*3. <i>Æ. incerta</i> (Schleg.).</p> <p>4. <i>Æ. rostrata</i> (Peale).</p> <p>*5. <i>Æ. magentæ</i>, nob. (1.)</p> <p>*6. <i>Æ. arminjoniana</i>, nob. (2.)</p> <p>7. <i>Æ. parvirostris</i> (Peale).</p> <p>8. <i>Æ. neglecta</i> (Schleg.).</p> <p>9. <i>Æ. solandri</i> (Gould).</p> <p>10. <i>Æ. grisea</i> (Kuhl).</p> <p>*11. <i>Æ. mollis</i> (Gould). (4.)</p> | <p>b. <i>COOKILARIA</i>, Bp.</p> <p>12. <i>Æstrelata cooki</i> (Gray).</p> <p>13. <i>Æ. gavia</i> (Licht.).</p> <p>14. <i>Æ. desolata</i> (Gm.).</p> <p>15. <i>Æ. gularis</i> (Peale).</p> <p>*16. <i>Æ. defilippiana</i>, nob. (4.)</p> <p>c. <i>PTERODROMA</i>, Bp.</p> <p>*17. <i>Æ. macroptera</i> (Smith). (3.)</p> <p>*18. <i>Æ. trinitatis</i>, nob. (2.)</p> <p>19. <i>Æ. caribbæa</i> (Carte).</p> <p>20. <i>Æ. aterrima</i> (Verreaux).</p> <p>21. <i>Æ. bulweri</i> (Jard. & Selby).</p> |
|--|---|

5. *PUFFINUS* —, sp. nov. ?

"The only specimen seen was shot on the 2nd of March, 1866, in the South Atlantic, lat. $43^{\circ} 54'$ S., long. $9^{\circ} 20'$ E. Bill light blue, with the culmen and apex black. Tarsi in front, and upper part of toes, light blue, tarsi behind, and under surface of toes, black; interdigital membranes whitish. Irides brown."—H. H. G.

P. supra ex toto cinereo-plumbeus, plumis totis angustissime albo-limbatis; tectricibus alarum mediis, majoribus, ac remigibus secundariis albo-limbatis, fascias tres trans alarum formantibus; subtus, tectricibus alarum inferioribus, remigibusque intus candidis; capitis ac colli lateribus albo-cinereo-mixtis; cauda brevi ex toto cinereo-plumbea; tarsis postice nigris, antice cærulescentibus; digitis subtus nigris, supra cærulescentibus, palamis albidis, unguibus nigris; rostro tenui, cærulescenti, culmine et apice nigris; iride brunnea.

Long. tot. $0^m\cdot320$, alarum $0^m\cdot190$, caud. $0^m\cdot075$, rostr. a fronte $0^m\cdot027$, hiatus $0^m\cdot037$, tars. $0^m\cdot040$, dig. med. cum ung. $0^m\cdot049$.

This species is very distinct, on account of the fine cinereous colour of its upper parts, from all hitherto described species, as enumerated by Coues in his Monograph. The only species with which it might perhaps be identical is *Puffinus mundus* Kuhl (*Nectris munda*, Banks, tab. 24); but the only description we have been able to consult, that of Bonaparte (Consp. Av. ii. p. 205), is far too brief and incomplete to be recognizable. The following is his diagnosis:—"Magnitudine *Perdicis*, alis cauda aliquantum brevioribus; cauda brevi, cuneiformi: rostro cyaneo-griseo, apice nigro: pedibus cyaneis, unguibus falcatis."

It is true that the above description fits our specimen in some parts, but certainly not in the shape of the tail, which is not wedge-shaped, but rounded; besides, the bill has also a black culmen, and the feet are not entirely blue; and then not a word is added about the coloration, so characteristic in this species—fine cinereous lead-colour above, and pure white below.

The only way to decide this interesting question is to compare our description with Banks's figure of his *Nectris munda*; it appears also that since his time no one has observed specimens

of that species ; and Bonaparte and Coues ask : “ *Quid Procellaria munda*, Kuhl ? ” If it should prove really new, it may go by the name PUFFINUS ELEGANS, nob.

Royal Zoological Museum, Turin,
September 12th, 1868.

VI.—Further Notes on *South-African Ornithology*.

By E. L. LAYARD, F.Z.S., &c.

IN continuation of my Notes, as promised in my letter of the 17th of December 1867 (*Ibis*, 1868, pp. 242–248), I beg leave to offer the following. The numbers prefixed to the names of the species refer to my ‘Birds of South Africa.’

5. OTOGYPS AURICULARIS. Mr. Henry Jackson has sent me eggs of this fine Vulture from the interior of the country, which differ considerably from those which are found in the neighbourhood of the sea-coast. They are white, with small distinct spots of the colour of dried blood, whereas those from the southern parts of the colony, that I have seen, are as described in my book. Mr. Jackson found that the eggs of this, and the next, weighed 9 oz. each. It breeds in June, as also does the next species.

6. GYPS FULVUS. Mr. Jackson has obtained for the Museum a splendid series of the eggs of this bird, and I append an account which he has sent me of an assault on the Vultures’ “Krantz” in the Beaufort Mountains.

“The South-African Museum being in want of eggs of *Gyps fulvus* from this country, I determined to try and procure some from a noted breeding-place of this species a short distance from my residence. My first attempt was made on the 19th October, 1866 ; but this proved too late in the season, all the eggs being hatched—though I had the satisfaction of ascertaining that most of the nests were accessible with the aid of a rope. I made a second attempt on the 31st August, 1867, but was again too late, obtaining only two addled eggs. Determined to be in time this year, I sent my nephew on the 30th May to see what the birds were doing ; and he reported seven eggs visible from the top of the “krantz” or precipice. Giving the birds three weeks longer to finish laying, I sent him again on the